Eccentric Clamping Arrangements. — Eccentric clamps and shafts for binding purposes are often used. In Figs. 46 and 47 are shown two applications of the principle of the eccentric shaft. In Fig. 46 the eccentric shaft *A* has a bearing at both ends, and the eye-bolt *B* is connected to it at the center and is forced down when the eccentric shaft is turned. This causes the two end points of the clamp *C* to bear on the work. This clamping arrangement has a very rapid action and gives good satisfaction. The throw of the eccentric shaft may vary from $_{T}V$ inch to about f inch, depending upon the diameter of the shaft and the accuracy of the work. In cases where it is re-

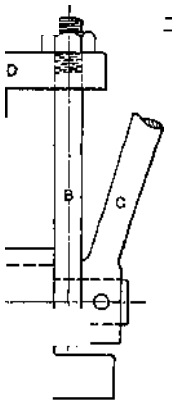

Fig. 47. Another Example of Eccentric Clamping Bolt

quired that the clamp should bear in the center, an arrangement like the one shown in Fig. 47 may be used. Here the eccentric shaft *A* has a bearing in the center and eye-bolts *B* are connected to it at the ends. As the eccentricity is the same at both ends, the eye-bolts or connecting-rods will be pulled down evenly when the lever *C* is

turned, and the strap *D* will get an even bearing on the work in the center. If the force of the clamping stress is required to be distributed equally at different points on the work, a yoke like that shown in Fig. 45 may be used in combination with the eccentric clamping device shown in Fig. 47. When it is essential that strap *D* should also be used for locat-